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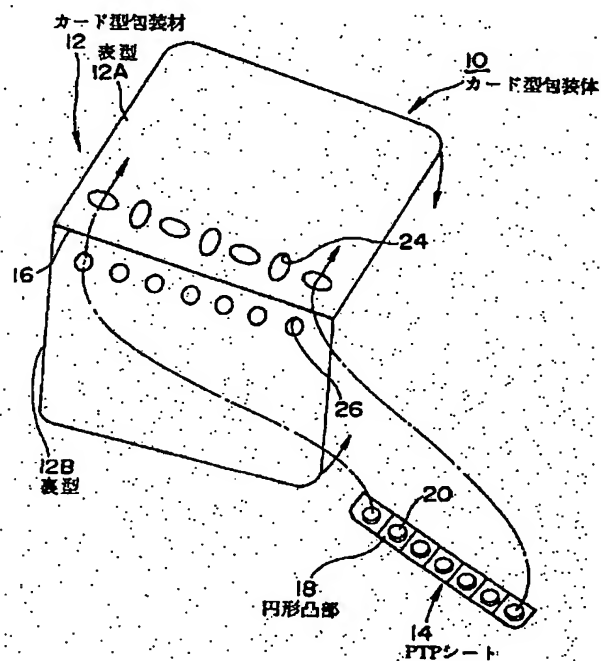
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(54) 【発明の名称】 カード型包装体、このカード型包装体の連続体、及びカード型包装体の製造方法

(57) 【要約】

【課題】 PTPシートに情報を直接印刷するのではなく、PTPシートを情報が記載されたカード型包装材にてパッキングして、多種多様な使用上の注意、服薬履歴、症状のメモ等の各種情報を確実に患者、医師、薬剤師、その他消費者等に伝達することができるカード型包装体を提供する。

【解決手段】 カード型包装材12は表型12Aと裏型12Bとからなり、両者の間に、錠剤が円形凸部18に収容されたPTPシートを封止する。したがって、服用上の留意事項をその都度記載できるカードによってPTPシートが封止されているために、多種多様な使用上の注意、服薬履歴、症状のメモ等の各種情報を確実に患者、医師、薬剤師、その他消費者等に伝達することができる。



【特許請求の範囲】

【請求項 1】 薬剤等の内容物が収容された P T P シートが、服用上の留意事項を記載したカード型包装材によって封止されているカード型包装体。

【請求項 2】 前記 P T P シートが、複数の薬剤を収容する複数の凸状部を有し、前記カード型包装材は、この凸状部が嵌入される複数の孔を有しており、この凸状部から前記薬剤等を脱離するためにこの凸状部を変形させた際に、この薬剤等をこの凸状部から通常の応力によって脱離できるような形態に前記孔が形成されている、請求項 1 記載のカード型包装体。

【請求項 3】 前記孔は前記凸状部にほぼ等しい幅と、この凸状部より大きい幅とを備えている、請求項 2 記載のカード型包装体。

【請求項 4】 前記孔は、前記凸状部と互いに対称に位置する一対の接点を成す形態に形成された、請求項 2 又は 3 記載のカード型包装体。

【請求項 5】 前記孔は前記凸状部との接点を有する、楕円状、菱形状、涙滴状、瓢箪状のいずれかに形成されている、請求項 5 記載のカード型包装体。

【請求項 6】 前記カード型包装材は一対の厚紙によって構成され、この一対の厚紙の間に、前記 P T P シートを封止した、請求項 1 乃至 5 のいずれか一項記載のカード型包装体。

【請求項 7】 前記凸状部は断面円形に形成されている、請求項 5 記載のカード型包装体。

【請求項 8】 請求項 1 乃至 7 のいずれか一項記載のカード型包装体の複数の連結部を介して、週単位或いは月単位に連結されてなるカード型包装体の集合体。

【請求項 9】 カード型包装材に設けられている孔に、P T P シートの凸部を嵌入させながら、このカード型包装材の表型と裏型との間にこの P T P シートを挟持する工程と、

このカード型包装材を台座上に置く工程であって、前記 P T P シートの凸部が台座の表面に形成された溝内に収容するようにする工程と、

この台座上のカード型包装材をヒーターによって押圧して、このカード型包装材の表型と裏型との間に前記 P T P シートを封入する工程と、を備え、

この封入の工程の際に、前記表型と裏型との間の空気を排出するようにされたカード型包装体の製造方法。

【請求項 1 0】 前記カード型包装材をヒーターによって押圧する際に、カード型包装材がその一端から他端にかけて序々にヒーターに依って押圧されることにより、前記表型と裏型との間の空気がカード型包装材の端部から外部に排出される、請求項 9 記載のカード型包装体の製造方法。

【請求項 1 1】 前記台座が基台に対して弾性手段によって支持されており、前記ヒーターがこの弾性手段の反力に抗しながらこの台座上のカード型包装体に対して序

々に圧接して行く、請求項 1 0 記載のカード型包装体の製造方法。

【請求項 1 2】 この弾性手段の代えて、前記台座が基台に対して偏心した中心軸に軸支されている、請求項 1 1 記載のカード型包装体の製造方法。

【請求項 1 3】 前記台座表面に、前記 P T P シートの凸部より余裕を持った大きい径から形成された溝が形成され、この溝内にこの凸部を嵌入するとともに、前記カード型包装材が台座上に保定具を用いて保持されている、請求項 9 乃至 1 2 のいずれか一項記載のカード型包装体の製造方法。

【請求項 1 4】 前記台座表面に、前記 P T P シートの凸部より余裕を持った大きい径から形成された溝が形成され、この溝内にこの凸部を嵌入するとともに、かつ、カード型包装材が前記台座上に減圧手段によって吸着されているカード型包装体の製造方法。

【発明の詳細な説明】

【 0 0 0 1 】

【発明が属する利用分野】本発明は、カード型包装体に関する。本発明は、特に、薬剤の P T P シートを収容するカード型包装体に関する。本発明は、さらに、このカード型包装体の連続体及びその製造方法（或いは組立方法）にも関する。

【 0 0 0 2 】

【従来の技術】従来から、薬剤の包装技術の一つとして、P T P (Press Through Package) 包装が知られている。この P T P シートには、薬剤が投与された者に、薬剤の種類や服用上の注意等の必要な情報を与えるために、文字などの情報が記載できるよう工夫されている。例えば、実開昭 6 1 - 1 1 3 2 5 9 号公報には、文字等が記入可能な着色部を備えた P T P シートが開示されている。

【 0 0 0 3 】 また、P T P シートに収容されている薬剤の数そのものを、服用する数に合わせるために、長手方向の 7 個が幅方向に一日の服用回数列並んだ個数の薬剤収容空間部を備えて一単位を構成する薬剤包装技術が開示されている（実開平 2 - 1 7 1 3 7）。この P T P シートには、さらに、曜日が印刷されている。

【 0 0 0 4 】 また、実開平 2 - 1 2 9 0 7 4 号公報には、服用される薬剤が曜日毎に順番に配列されており、且つ包装シートに曜日が記載された薬剤包装技術が開示されている。

【 0 0 0 5 】 また、帯状の P T P シートの錠剤を一定単位で送り出すことができ、しかも服用する日や服用回数がかかるようにした P T P シートのハードケースが存在する（実開平 6 - 2 5 1 7 1 号）。またさらに、実開平 2 - 1 7 1 3 7 号公報に記載の P T P シートを収容するようにした、同様なハードケースが存在する（実開平 6 - 4 2 7 4 9 号、実開平 6 - 4 2 7 5 0 号。）

【 0 0 0 6 】

【発明が解決しようとする課題】既述の従来例では、いずれも、PTPシートに直接文字等の情報が記載されている。既知の症例に対する投薬の段階では、薬剤を服用する形態がある程度決まっているために、このような直接印刷であっても特に不都合はない。しかしながら、例えば、臨床試験段階の薬剤では、投薬の形態が確定していないために、かつ、多種多様な注意事項を患者に伝える必要があるために、既述のような直接印刷は、妥当ではない。

【0007】そこで、本発明は、PTPシートに情報を直接印刷するのではなく、PTPシートを情報が記載されたカード型包装材にてバックリングして、多種多様な使用上の注意、服薬履歴、症状のメモ等の各種情報を確実に患者、医師、薬剤師、その他消費者等に伝達することができるカード型包装体を提供することを目的とする。

【0008】さらに、本発明は、このカード型包装体から、PTPシートに収容された個々の薬剤等の収容物を、容易かつ確実に取り出すことができる、カード型包装体を提供することを目的とする。

【0009】さらに、本発明は、このカード型包装体の包装不良を来すことが無く、このカード型包装体を製造可能なカード型包装体の製造方法を提供することを目的とする。

【0010】さらに、また、本発明は、このカード型包装体を週の服用単位或いは月の服用単位に連続させた連続体によって、患者、消費者の服用に便宜を与えるようにしたカード型包装体の連続体を提供することを目的とする。

【0011】

【課題を解決するための手段】前記目的を達成するために、本発明に係わるカード型包装体は、薬剤等の内容物が収容されたPTPシートが服用上の留意事項を記載したカード型包装材によって封止されている、ことを特徴とする。したがって、服用上の留意事項をその都度記載できるカードによってPTPシートが封止されているために、多種多様な使用上の注意、服薬履歴、症状のメモ等の各種情報を確実に患者、医師、薬剤師、その他消費者等に伝達することができる。

【0012】好ましい、発明の実施の形態では、前記PTPシートが、複数の薬剤を収容する複数の凸状部を有し、前記カード型包装材は、この凸状部が嵌入される複数の孔を有しており、この凸状部から前記薬剤等を脱離するためにこの凸状部を変形させた際に、この薬剤等をこの凸状部から通常の応力によって脱離できるような形態に前記孔が形成されている。

【0013】このために、この孔は前記凸状部にほぼ等しい幅と、この凸状部より大きい幅とを備えていて、好ましくは、前記孔は、前記凸状部と互いに対称に位置する一対の接点を成す形態に形成される。この孔は前記凸状部との接点を有する、楕円状、菱形状、涙滴状、瓢箪

状のいずれかに形成されていて良い。

【0014】前記カード型包装材は、好適には、一対の厚紙によって構成され、この一対の厚紙の間に、前記PTPシートを封止した構造を備えている。前記凸状部は、例えば、断面円形に形成されていて、その内部に錠剤を収容する。

【0015】本発明に係わるカード型包装体の連続体は、既述のカード型包装体の複数が連結部を介して、週単位或いは月単位に連結された構造を備えている。

【0016】さらに、本発明に係わるカード型包装体の製造方法は、カード型包装材に設けられている孔に、PTPシートの凸部を嵌入させながら、このカード型包装材の表型と裏型との間にこのPTPシートを挟持する工程と、このカード型包装材を台座上に置く工程であって、前記PTPシートの凸部が台座の表面に形成された溝内に収容するようにする工程と、この台座上のカード型包装材をヒーターによって押圧して、このカード型包装材の表型と裏型との間に前記PTPシートを封入する工程とを備え、この封入の工程の際に、前記表型と裏型との間の空気を排出するようにされたことを特徴とする。

【0017】好適な実施形態では、前記カード型包装材をヒーターによって押圧する際に、カード型包装材がその一端から他端にかけて序々にヒーターに依って押圧されることにより、前記表型と裏型との間の空気がカード型包装材の端部から外部に排出される。前記台座が基台に対して弾性手段によって支持されており、前記ヒーターがこの弾性手段の反力に抗しながらこの台座上のカード型包装体に対して序々に圧接して行く。

【0018】この弾性手段に代えて、前記台座が基台に対して偏心した中心軸に軸支されるようにしても良い。

【0019】また、他の好ましい実施形態では、前記台座表面に、前記PTPシートの凸部より余裕を持った大きい径から形成された溝が形成され、この溝内にこの凸部を嵌入するとともに、前記カード型包装材が台座上に保定具を用いて保持されている。さらに、他の好ましい実施形態では、この保定具の代わりに、カード型包装材が前記台座上に減圧手段によって吸着されていても良い。

【0020】

【発明の実施の形態】次に、本発明の実施の形態について、添付図面を参照して説明する。この実施形態では、治験、すなわち、薬剤の治療成績を入手するために、医療機関において、実施される臨床試験、その他治療試験に利用されるカード型包装体について説明する。

【0021】このカード型包装体の正面図を図1に示し、その背面図を図2に示し、その展開図を図3に示し、その分解斜視図を図4に示す。

【0022】このカード型包装体は、図4に示すように、全体が矩形の厚紙からなるカード型包装材12の間

に薬剤のPTPシート14を封止した構造からなっている。図1に示すカード型包装材の表型12Aと図2に示すその裏型12Bとは、図3及び図4に示すように、その中心線16を対称にして互いに向き合うように折り込まれ、表紙と裏紙との間に薬剤のPTPシートが挟持されている。

【0023】このPTPシートは、図4及び図1に示すように、薬剤を収容する断面が円形である円形凸部18が1列状に設けられた構造を備え、かつ、その個々の凸部内に一つの錠剤20が収容されている。

【0024】このPTPシートの凸部との反対面には、アルミ箔が凸部を持ったプラスチック材（例：塩化ビニル樹脂）の全面に接着しており、この凸部をその反対面に向けて押圧することによって、凸部内の錠剤がアルミ箔（図2の符号22）を破ってPTPシート外に露出する。凸部の開放端（プラスチック材の裏面に開放している。）がアルミ箔によって覆われている。

【0025】図1、図3、図4に示されているように、カード型包装体の表型には、PTPシートの個々の円形凸部を嵌入できる複数の楕円孔24が1列状に形成されている。そして、裏型には、この円形凸部に相当する位置に、この円形凸部の直径にほぼ等しい形の円形孔26が同様に1列状に形成されている。

【0026】この表型と裏型には、図1及び図2に示すように、治験段階に必要な比較的细节に及ぶ投薬上の留意事項等が記載されている。この投薬を受ける患者等は、この比較的细节に渡る留意事項を参照して、薬剤を服用する。図1及び図2のカード型包装体には、1週間分の錠剤が収容されている。

【0027】このカード型包装体を組み立てる（製造する）場合は、図4に記載されているように、先ず表型の背面から、PTPシートの各凸部18を楕円孔にそれぞれ嵌入させ、次いで、裏型を中心線16に沿って表型に向けて折り込んで、表型と裏型との間にPTPシートを封入する。表型と裏型とは、所定の接着剤、粘着剤によって互いに貼着される。好ましくは、感熱糊を用いて貼付される。なお、これらの工程については、後ほど詳説する。

【0028】図5は、表型の背面からその楕円孔24にPTPシートの凸部18が嵌入されている状態を示す、部分拡大図である。この図に示すように、この楕円孔は、円形凸部の直径とほぼ等しい幅に形成された短径24Aと、円形凸部の直径より大きい幅の長径24Bとを備えている。この長径は、円形凸部の直径の略1.5倍の幅を持っている。

【0029】楕円孔の短径24Aは、円形凸部の径とほぼ等しい値であることから、短径と円形凸部外周との交点において、楕円孔と円形凸部とが接する一対の接点30A、30Bが長径24Bを介して線対称に存在する。

【0030】次に、カード包装体10の孔をこのような

形状に形成した理由について説明する。先ず、比較のために、孔が円形凸部の直径とほぼ等しい直径の円形孔から形成されている場合の利益と不利益について説明する。一般に、カード型包装材の孔にPTPシートの凸部を収容する際、孔に凸部を正確に位置決するために、或いは孔に嵌入される凸部の移動やずれを無くするために（この凸部を孔に保持、固定するために）、円形孔の径を既述のように円形凸部のそれとほぼ同じ値に設定しようとする。

10 【0031】カード包装体からPTPシート内の錠剤を取り出す際には、図6の断面図のように、カード包装体の表紙の側12Aから、PTPシートの凸部18を背面側に押してこれを変形させ、裏紙の円形孔26に露出するアルミ箔22を破って錠剤20をカード型包装体の外部に取り出すようにしていた。

【0032】しかしながら、この方式では、表型12Aの円形孔外壁13がPTPシート凸部18に接しているか、或いはこれに極めて接近していることから、応力によって潰れようとする凸部の変形が干渉される虞がある。この変形が干渉されると、凸部が潰れる程度が抑制され、潰れた凸部がその背面から錠剤を押し出そうとすることが妨げられることになる。したがって、円滑、且つ容易に凸部から錠剤を取り出すことができなくなる。この妨げに抵抗してさらに凸部18を押し潰そうとすると、勢い、凸部周りのカード型包装材に必要な以上の応力を加えなくてはならず、カード型包装体の変形量が大きくなって目的とする凸部以外の他の凸部背面のアルミ箔が意図することなく破れたり、ひいては他の凸部から錠剤が飛び出たりする問題がある。

30 【0033】そこで、本発明の実施形態では、図5に示すように、そして、図7（図3のA-A断面図）に示すように、この円形孔を楕円孔にすると、楕円の短径24Aが円形凸部18と相対向する接する接点30Aと30Bにおいて、カード型包装材の表型12Aの壁面が凸部18を支持する一方、長径部分30Bと円形凸部18との間には、既述の円形凸部が潰れることによる変形量を吸収できる余裕（逃げ）32が存在する。したがって、円形凸部を潰すのに必要以上の力を要することなく、円形凸部から錠剤を取り出すことが可能となる。

40 【0034】このような楕円孔は、凸部を支持する接点と、凸部が潰れることによる変形（すなわち、凸部の径方向に凸部外壁が当初の位置より突出したことによる変形）の量を吸収できる余裕を備える。この接点と余裕を備えるならば、カード型包装材に形成された開孔は、楕円形状のものに限定されない。例えば、菱形（図8の（1））、瓢箪型（同（2））、涙滴型（同（3））の形状であっても良い。

【0035】楕円孔の接点（他の形状でも同じ）は、長径24Bに線対称に形成されている（図5参照）。したがって、この接点30Aと30Bとの間に円形凸部18

が均等に支持される。また、接点以外の箇所に余裕 3 2 を有しているために、この楕円開口 2 4 に凸部 1 8 を嵌入することは容易である。なお、菱形形状の場合は、菱形の中心に点対称な 4 つの接点によって、前記円形凸部がより確かに菱形孔に支持される (図 8 (1) 参照)。

【0036】図 3 に示すように、前記カード型包装体の円形凸部収容用の複数の楕円孔 2 4 は、隣接する楕円孔の短径と隣接する楕円孔の長径が互いに直交するように、それぞれ形成されている。したがって、PTP シートの長手方向の幅とカード型包装材の長手方向の幅が、開口を楕円状にしても、必要以上に増大しないようにできる。

【0037】前記カード型包装体の表面及び裏面には、望む内容や量を持った投薬情報、留意事項、注意事項等の各種情報を記載して、この情報を医師、薬剤師、あるいは患者に伝えることができる。特に、各種情報が予め記載された多種多様なカード型包装材を事前に用意し、所定の一つの包装材を用いて PTP シートをシールすれば良い。このことにより、多種多様な薬剤投与上の要求に答えることが可能となる。このような情報を、PTP シートに事前に印刷することは、通常手間が多く望まれることではない。このような要求は、例えば、薬剤の治験の時に顕われる。すなわち、薬剤の治験の場合は、様々の注意事項、留意事項を確実に患者に伝える必要がある。勿論、上市されている薬剤であっても、既述のような実施形態を採用することによって、個々具体的な情報を確実にユーザーに伝えることができる。当然のことながら、薬剤以外の菓子、食品等の内容物 (被包装物) 一般に本願発明を適用することができる。このとき、注意事項や、留意事項に代えて、宣伝広告情報をカード型包装材に適用することもできる。

【0038】次に、この実施形態に係わるカード型包装体の製造方法について説明する。図 9 は、カード型包装材の表型と裏型との間に PTP シートが挟持された包装体が設置される台座の平面図である。そして、図 10 はこの台座の B-B 線断面図である。これらの図において、40 は連結帯で連結された 2 連のカード包装体が置かれる領域を示し、42 はこの包装体の基端を台座に対して固定するための保持具を示す。

【0039】図 10 に示すように、符号 40 は既述の包装体が収容される凹部である。この凹部の先端には、カード型包装体の上端に当節する壁 44 が形成されている。保持具の符号 46 (図 9) は、作業員がこの保持具を台座に向けて回転させるため、あるいは保持具が台座から離れるように回転させるための取手である。

【0040】図 10 の符号 48 は、この保持具を台座に対して回動させるための蝶番の回転中心を示す。この台座には、PTP シートの凹部が嵌入される円形孔 50 が一列に並んでいる。

【0041】この台座を用いたカード型包装体の製造工

程は、次のとおりである。

【0042】1. PTP シートの凸部 1 8 をカード型包装材の表紙の楕円孔 2 4 に嵌入するように、PTP シートを包装材の表型 1 2 A と裏型 1 B との間に挟持する。表型と裏型の少なくとも一つの背面のほぼ全体には、予め感熱糊が塗布されている。感熱糊は、カード型包装体が一定の温度以上に押圧状態で加熱されると融解し表型と裏型とを貼付する。感熱糊としては融点が 80℃程度のもものが利用される。

【0043】2. このカード型包装体を台座に載せ、次いで、保持具によって台座上のカード型包装体の基端部を保持する。

【0044】3. ヒーターを台座上のカード型包装体に圧接する。この時の圧力は、シリンダに接続されたヒーターを台座に押し付けることによって実現される。圧力は、通常、カード型包装体の全面積に対して 1 トンであり、加熱温度は約 130℃乃至 200℃である。加熱時間は 2 秒乃至数秒である。

【0045】勿論、この圧力、加熱温度、加熱時間は、カード型包装材の厚み、材質、面積によって適宜調整される。PTP シートの凸部が台座の円形溝内に嵌入されているために、凸部内の錠剤にこの圧や熱が及ぶことを防いで (凸部が 50℃以上になることを防ぐ)、凸部が加圧の際に潰れたり或いは錠剤に熱が及んで薬剤が変質しないようにしている。

【0046】ヒーターは、その全面によって台座上のカード型包装体を加熱押圧するのではなく、台座上のカード型包装体を図 9 の一点鎖線或いはハッチングで示すようなパターンに加熱できるようにすれば良い。このようにすることによって、カード型包装体の全面を貼付する場合に比較して、裏型と表型とにしわを生じる事無く両者を均一に貼付することが可能となる。

【0047】5. 保持具をカード型包装体から離した後、カード型包装体を台座上から取り出す。

【0048】4 の工程においては、次のような問題がある。まず第 1 に、カード型包装体の表型と裏型との間の空気を適切に両者の間から排出させることである。このことが適切に行われないと、表型と裏型との間に空気が残存して両者の貼着不良が発生する。包装材が厚くなるほどこの問題が大きくなる。

【0049】そこで、図 11 に示すように、符号 60 の耐熱テープ等を図 9 で示される加熱パターンに合わせて、台座 61 上のカード包装体収容凹部 40 に貼り付けて台座上に僅かな段差を形成する。但し、耐熱テープに切れ目 62 を設けて、この切れ目から表型と裏型とが互いに圧着される際に空気が除かれるようにされている。

【0050】一方、このことに代えて次のような形態を採ることも有効である。図 12 はこの形態に係わる台座 61 をその側面から示したものである。この台座は基台 64 に支持されているが、台座と基台との間には、台座

の先端寄りに弾性手段 66 が形成されている。弾性手段としては例えば、コイルばね、板ばねである。

【0051】図 12 に示すように、シリンダ 68 に固定されたヒーター 70 をこの台座 61 に対して押圧すると、台座はこの押圧によって弾性手段からの反力（弾性力）を受けながら、台座の基端 72 の蝶番を中心に基台 64 に向けて序々に矢示 74 に示されるように回転する。

【0052】この過程でヒーターは、一点破線である矢示 76 に示すように、台座上のカード型包装体に包装体の基端から先端に向けて序々に圧接する。すなわち、台座上のカード型包装体の基端 10A から先端 10B に向かって順次表型と裏型とが貼付されていく。図中の破線は、台座が基台にほぼ平行になるまで回転した状態を示している。カード型包装体の先端は、表紙と裏紙とが連結されていない開口を成していることから、この開口から表紙と裏紙との間の空気を螺旋矢示 78 に示すように排出することができる。

【0053】この弾性手段（弾発手段）を採用した形態に代えて、図 13 に示すように基台 64 に対して揺動する台座 61 を採用しても良い。すなわち、基台と台座との両縁に支持軸 77 を貫通させて台座を基台に対して揺動自在に軸支する。この支持軸は台座の中心より先端寄りに偏芯して設けるようにすれば、この揺動自在の支持が実現される。ヒーターが台座に当接していない状態では、台座の基端寄りがその自重によって先端より下がっている形態を採っている（図 13 の（1））。この形態からヒーターが台座に当接すると台座の基端が持ち上げられ、かつその先端が下げられて、最終的には基台と台座とが図 13 の（2）に示すように平行にされる。この（2）に到る過程で図 12 の矢示 76 に示すように、カード型包装体の基端から先端にかけて序々に表型と裏型とが熱圧着される。

【0054】第 2 に、カード型包装体を台座に載せるときの不都合が存在する。カード型包装体から突出する前記凸部 18 を台座の円形凹部 50 内に十分止めておくことが望まれる。そうしなければ、カード型包装体に圧力を加えて際、凸部 18 が凹部 50 より外れてしまう。そこで、円形凹部の径を円形凸部の径より僅かに大きい程度にすることが考えられるが、これでは、円形凸部が変形したりあるいは円形凸部に傷が付くなどの問題がある。そこで、円形凹部の径を円形凸部の径より余裕をもって大きな値とし、既述の保定具 42 を用いてカード型包装体の基端部を台座に対して保持、固定（保定）する。

【0055】一方、このような保定具に依らず、図 14 に示すように台座の表面に真空ポンプ等の減圧手段に連結する開口 80 を形成して、台座上のカード型包装体を台座に対して減圧吸着させるようにしても良い。

【0056】図 15 は、既述のカード型包装体が、連結

された連続体を示した正面図である。この連続体は、連結部 82 を介して、複数のカード型包装体 10 が互いに連結された構造を備えている。連結部 82 は、例えば、表型あるいは裏型と一体に形成しておく。この連結部にミシン目を設くことにより、使用済みのカード型包装体を連続体から切り放して、医師等に渡すことができる。

【0057】この連続体は、一週間分の薬剤が収容された包装体を 4 個長さ方向に連結されている。したがって、全体としては、月単位の服用数の薬剤がこの連結体に収容されている。勿論、一つの包装体が日の単位であり、この包装体が 7 つ連結されていれば、全体として週単位の服用に用いられる連続体が提供される。

【0058】この連続体において、PTP シートの円形凸部が設けられた列 90 は、隣接するシート型包装体でずれて形成されている。こうすることによって、シート型包装体の表型同士を対向させて、連結部 82 を介して折り込んだときに、表型の孔 24 から突出する PTP シートの凸部同士が互いに接することが無いようにしている。

【0059】なお、前記実施形態では、カード型包装材の表型と裏型とを感熱糊によって圧着させたが、これに代えて両面テープであっても良い。

【0060】

【発明の効果】以上説明したように、本発明によれば、PTP シートに情報を直接印刷するのではなく、PTP シートを情報が記載されたカード型包装材にてバックリングして、多種多様な使用上の注意、服薬履歴、症状のメモ等の各種情報を確実に患者、医師、薬剤師、その他消費者等に伝達することができるカード型包装体を提供することができる。

【0061】さらに、本発明によれば、このカード型包装体から、PTP シートに収容された個々の薬剤等の収容物を、容易かつ確実に取り出すことができる、カード型包装体を提供することができる。

【0062】さらに、本発明によれば、このカード型包装体の包装不良を来すことが無く、このカード型包装体を製造可能なカード型包装体の製造方法を提供することができる。

【0063】さらに、また、本発明によれば、このカード型包装体を週の服用単位或いは月の服用単位に連続させた連続体によって、患者、消費者の服用に便宜を与えるようにしたカード型包装体の連続体を提供することができる。

【図面の簡単な説明】

【図 1】カード型包装体の正面図である。

【図 2】その背面図である。

【図 3】その展開図である。

【図 4】その分解斜視図である。

【図 5】カード型包装材の表型の背面からその楕円孔に PTP シートの凸部が嵌入されている状態を示す模式図

である。

【図 6】カード型包装体の PTP シートの凸部が嵌入されている付近の断面図である。

【図 7】図 3 の A-A 断面図である。

【図 8】カード型包装体の楕円孔に代えた他の孔の形態を示す模式図である。

【図 9】カード型包装材の表型と裏型との間に PTP シートが挟持された包装体が設置される台座の平面図である。

【図 10】この台座の B-B 線断面図である。

【図 11】この台座の表面部分に耐熱テープを貼付した状態を示す斜視図である。

【図 12】基台に対する台座の支持形態の一例を示す模式図である。

【図 13】その他の例を示す模式図である。

【図 14】台座の表面に、減圧手段に連結する開口が形成されている状態を示すための、その台座の斜視図である。

【図 15】カード型包装体が、連結された連続体を示した正面図である。

【符号の説明】

10 カード型包装体

12 カード型包装材

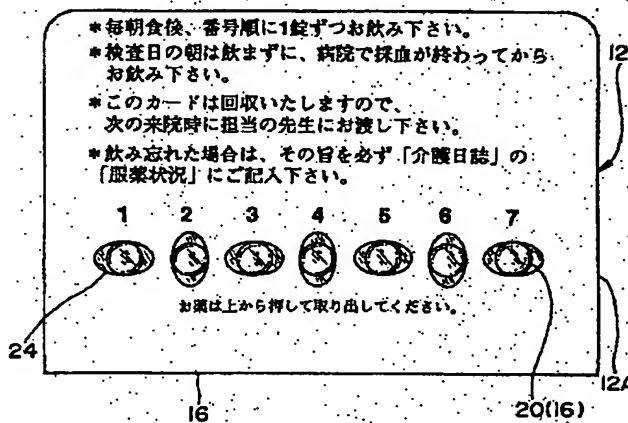
10 12 A (カード型包装材の) 表型

12 B (カード型包装材の) 裏型

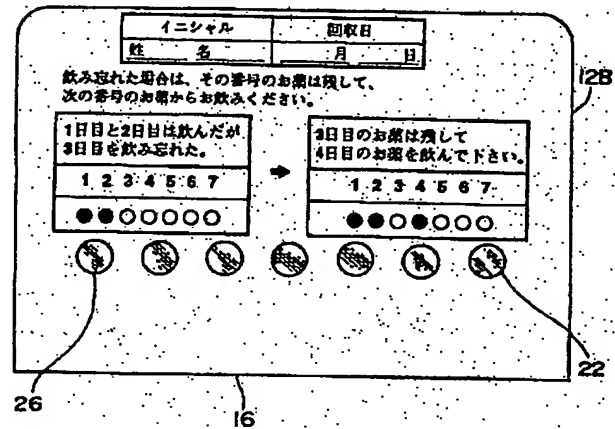
14 PTP シート

18 円形凸部

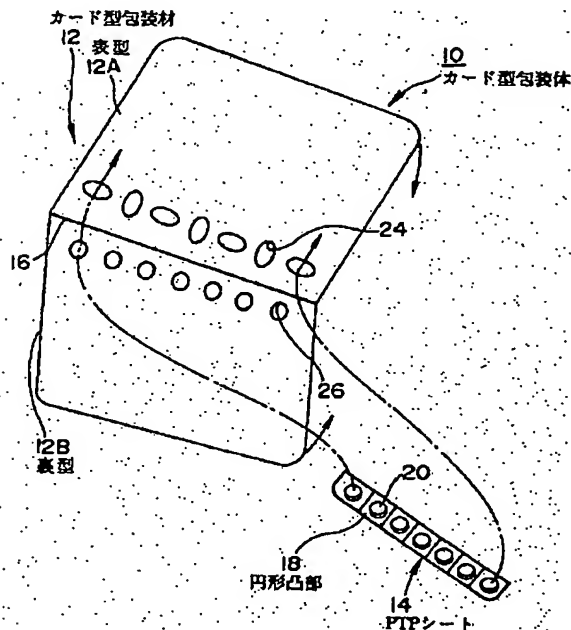
【図 1】



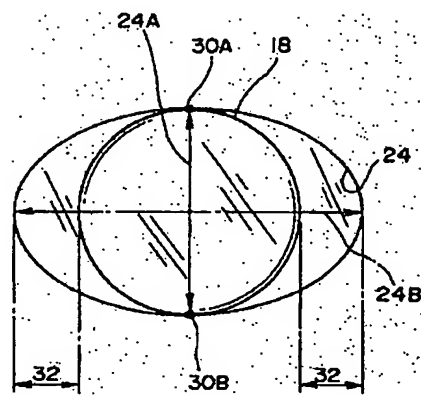
【図 2】



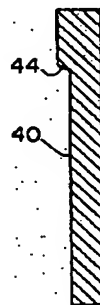
【図 4】



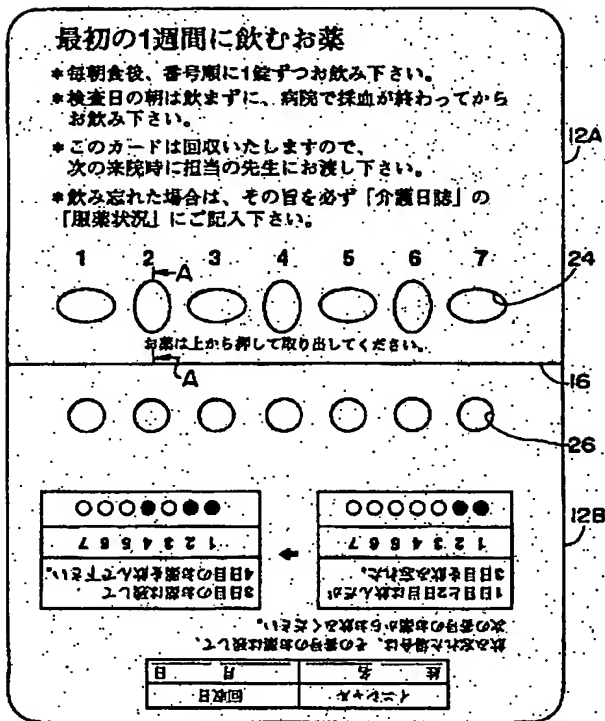
【図 5】



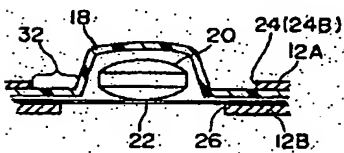
【図 10】



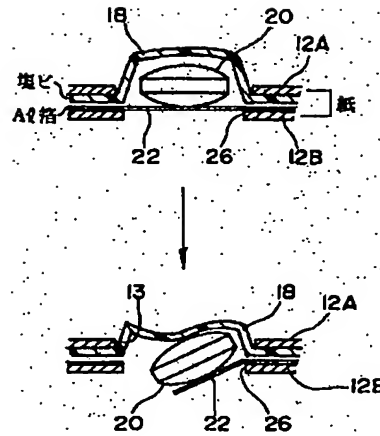
【図3】



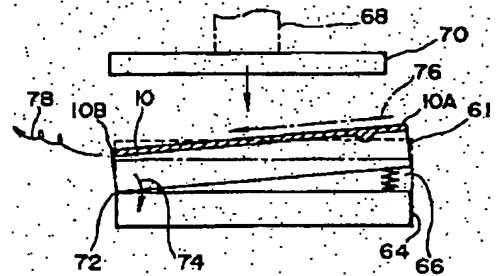
【図7】



【図6】

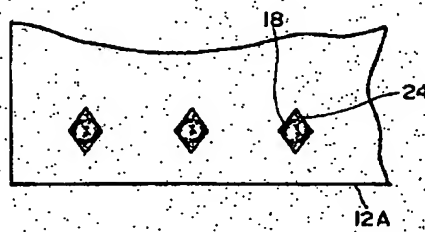


【図12】

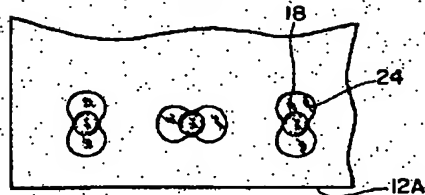


【図13】

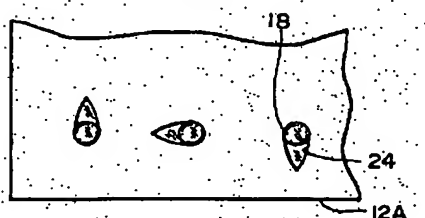
(1)



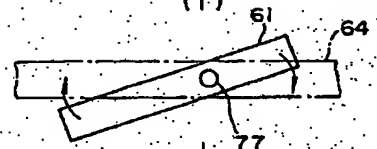
(2)



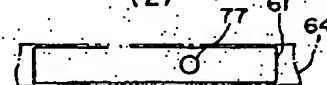
(3)



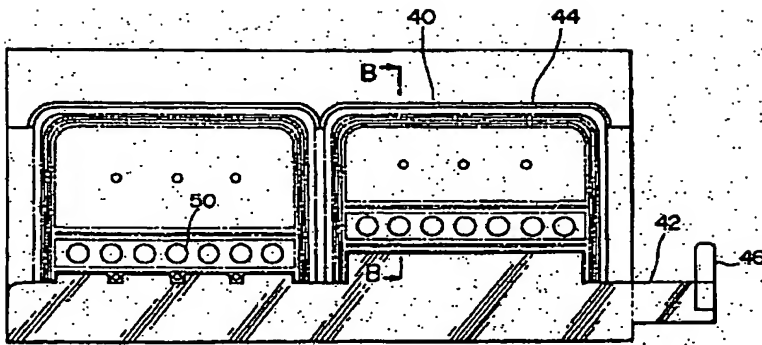
(1)



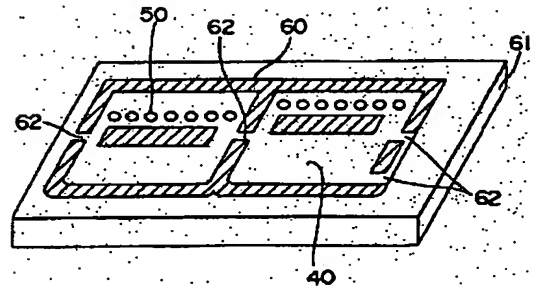
(2)



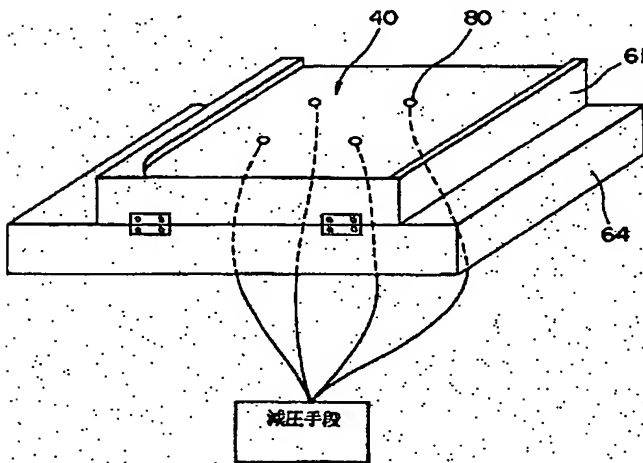
【図 9】



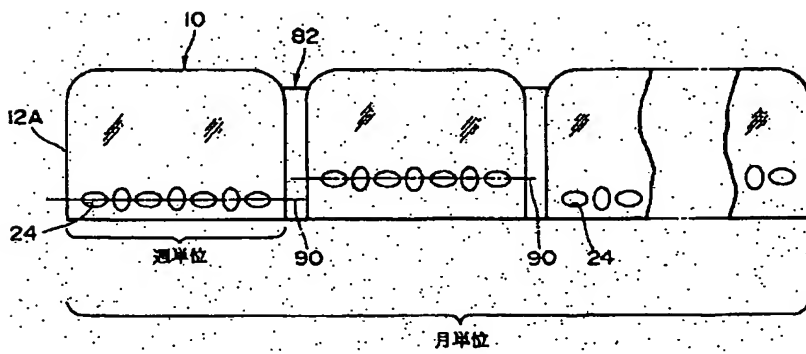
【図 11】



【図 14】



【図 15】



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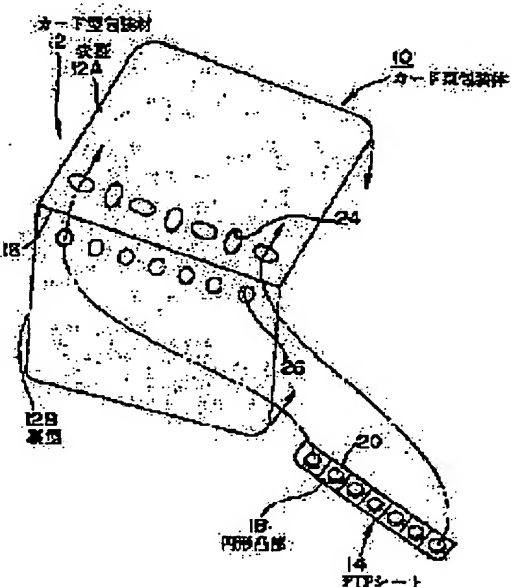
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(54) CARD-SHAPED PACKAGE, CONNECTIVE BODY OF THE SAME, AND MANUFACTURE THEREOF

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a card-shaped package which can reliably transmit various information including various kinds of precautions in using medicine, a history of taking medicine, a note of symptoms, etc., to a patient, a doctor, a pharmacist and other consumers by packing a PTP sheet by a card-shaped packaging material with information mentioned instead of directly printing the information on the PTP sheet.

SOLUTION: A card-shaped packaging material 12 comprises a surface 12A and a rear 12B, while a PTP sheet with tablets received in circular protrusions 18 is sealed between them. Therefore since the PTP sheet is sealed by a card on which cautions in taking medicine can be mentioned each time, various kinds of information such as various precautions in taking the medicine, a history of taking medicine and a note of symptoms can be reliably transmitted to a patient, a doctor, a pharmacist and other consumers.



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CLAIMS

[Claim(s)]

[Claim 1] The card mold package object with which the closure of the PTP sheet with which contents, such as drugs, were held is carried out by the card mold packing material which indicated the consideration matter on recipe.

[Claim 2] It is the card mold package object according to claim 1 with which said card mold packing material has two or more holes with which this height is inserted, and said hole is formed in the gestalt which can be desorbed from these drugs etc. with stress usual from this height from this height by said PTP sheet having two or more heights which hold two or more drugs when this height is made to deform, since it is desorbed from said drugs etc.

[Claim 3] Said hole is a card mold package object [equipped with width of face almost equal to said height, and larger width of face than this height] according to claim 2.

[Claim 4] Said hole is the card mold package object according to claim 2 or 3 formed in the gestalt which constitutes said height and the contact of the pair mutually located in the symmetry.

[Claim 5] Said hole is a card mold package object according to claim 5 currently formed in either of the shape of the shape of the shape of an ellipse which has a contact with said height, and a ** type, tear-drop, and a gourd.

[Claim 6] Said card mold packing material is the card mold package object of claim 1 thru/or the any 1 term publication of five which was constituted by the pasteboard of a pair and closed said PTP sheet between the pasteboard of this pair.

[Claim 7] Said height is a card mold package object according to claim 5 currently formed in the cross-section round shape.

[Claim 8] The aggregate of the card mold package object with which it comes to connect the plurality of claim 1 thru/or the card mold package object of seven given in any 1 term per a week unit or moon through the connection section.

[Claim 9] Making the heights of a PTP sheet insert in the hole prepared in the card mold packing material The process which pinches this PTP sheet between the front mold of this card mold packing material, and a flesh-side type, The process held in Mizouchi in whom it is the process which places this card mold packing material on a plinth, and the heights of said PTP sheet were formed on the surface of the plinth, The manufacture approach of a card mold package object that press the card mold packing material on this plinth at a heater, have the process which encloses said PTP sheet between the front mold of this card mold packing material, and a flesh-side type, and the air between said front mold and a flesh-side type was discharged on the occasion of the process of this enclosure.

[Claim 10] The manufacture approach of a card mold package object according to claim 9 that the air between said front mold and a flesh-side type is discharged outside from the edge of a card mold packing material when a card mold packing material is missing from the other end from the end and is therefore gradually pressed by the heater, in case said card mold packing material is pressed at a heater.

[Claim 11] The manufacture approach of the card mold package object according to claim 10 which carries out a pressure welding gradually and goes to the card mold package object on this plinth while said plinth is supported by the elastic means to the pedestal and said heater resists the reaction force of this elastic means.

[Claim 12] The manufacture approach of the card mold package object according to claim 11 which this elastic means replaces with and is supported to revolve by the medial axis in which said plinth carried out eccentricity to the pedestal.

[Claim 13] The manufacture approach of the card mold package object of claim 9 thru/or the any 1 term publication of 12 by which said card mold packing material uses a retention implement, and is held on said plinth front face at the plinth top while the slot formed from the large path with allowances is formed and inserting these heights in this Mizouchi from the heights of said PTP sheet.

[Claim 14] The manufacture approach of a card mold package object that said plinth front face is adsorbed by the reduced pressure means on said plinth in the card mold packing material while the slot formed from the large path with allowances is formed and inserting these heights in this Mizouchi from the heights of said PTP sheet.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[The field of the invention to which invention belongs] This invention relates to a card mold package object. Especially this invention relates to the card mold package object which holds the PTP sheet of drugs. This invention relates also to the continuum and its manufacture approach (or the assembly approach) of this card mold package object further.

[0002]

[Description of the Prior Art] From the former, the PTP (Press Through Package) package is known as one of the package techniques of drugs. In order to give required information, such as a class of drugs, and cautions on recipe, to those by whom this PTP sheet was medicated with drugs, it is devised so that information, such as an alphabetic character, can be indicated. for example, the PTP sheet which equipped JP,61-113259,U with the coloring section which can fill in an alphabetic character etc. — an indication — now, it is.

[0003] moreover, in order to double the number of the drugs held in the PTP sheet itself with the number to take, seven of a longitudinal direction are recipe time sequence-of-numbers **** of a day crosswise — the drugs package technique which is equipped with the drugs hold space section of the number, and constitutes one unit is indicated (publication of unexamined utility model application Heisei 2-17137). The day of the week is further printed by this PTP sheet.

[0004] Moreover, the drugs package technique in which the drugs taken are arranged in order by JP,2-129074,U for every day of the week, and the day of the week was indicated by the package sheet is indicated.

[0005] Moreover, the tablet of a band-like PTP sheet can be sent out in a fixed unit, and the hard case of the PTP sheet which the day moreover taken and the count of recipe understood exists (JP,6-25171,U). Furthermore, the same hard case which held the PTP sheet of a publication in JP,2-17137,U exists (JP,6-42749,U, JP,6-42750,U).

[0006]

[Problem(s) to be Solved by the Invention] In the conventional example as stated above, information, such as a direct alphabetic character, is all indicated by the PTP sheet. In the phase of the medication to a known case, since the gestalt which takes drugs was decided to some extent, even if it is such direct printing, there is no especially un-arranging. However, since the gestalt of medication is not decided, and since it is necessary to tell a patient various notes with the drugs of a clinical trial phase for example, direct printing like previous statement is not appropriate.

[0007] Then, this invention carries out packing of the PTP sheet in the card mold packing material information was indicated to be rather than prints information directly on a PTP sheet, and aims at offering the card mold package object which can transmit certainly various information, such as a memorandum of various cautions of operation, medication hysteresis, and a symptom, to a patient, a medical practitioner, a pharmacist, other consumers, etc.

[0008] Furthermore, this invention aims at offering the card mold package object which can pick out easily and certainly hold objects, such as each drugs held in the PTP sheet, from this card mold package object.

[0009] Furthermore, this invention aims at not causing the poor package of this card mold package object, and offering the manufacture approach of a card mold package object that this card mold package object can be manufactured.

[0010] Furthermore, this invention aims at offering the continuum of the card mold package object which gave facilities to recipe of a patient and a consumer by the continuum which this card mold package object was made to follow per recipe of the recipe unit of a week, or the moon again.

[0011]

[Means for Solving the Problem] In order to attain said purpose, the card mold package object concerning this invention is characterized by what is done for the closure of the PTP sheet with which contents, such as drugs, were held by the card mold packing material which indicated the consideration matter on recipe. Therefore, since the closure of the PTP sheet is carried out with the card which can indicate the consideration matter on recipe each time, various information, such as a memorandum of various cautions of operation, medication hysteresis, and a symptom, can be certainly transmitted to a patient, a medical practitioner, a pharmacist, other consumers, etc.

[0012] With the desirable gestalt of implementation of invention, said PTP sheet has two or more heights which hold two or more drugs, said card mold packing material has two or more holes with which this height is inserted, and since it is desorbed from said drugs etc., when this height is made to deform from this height, said hole is formed in the gestalt which can be desorbed from these drugs etc. with stress usual from this height.

[0013] For this reason, this hole is equipped with width of face almost equal to said height, and larger width of face than this height, and said hole is preferably formed in the gestalt which constitutes said height and the contact of the pair mutually located in the symmetry. This hole may be formed in either of the shape of the shape of the shape of an ellipse which has a contact with said height, and a ** type, tear-drop, and a gourd.

[0014] Suitably, said card mold packing material was constituted by the pasteboard of a pair, and is equipped with the structure which closed said PTP sheet between the pasteboard of this pair. Said height is formed for example, in the cross-section round shape, and holds a tablet in the interior.

[0015] The continuum of the card mold package object concerning this invention is equipped with the structure where the plurality of a card mold package object as stated above was connected per a week unit or moon through the connection section.

[0016] Furthermore, the manufacture approach of the card mold package object concerning this invention Making the heights of a PTP sheet insert in the hole prepared in the card mold packing material The process which pinches this PTP sheet between the front mold of this card mold packing material, and a flesh-side type, The process held in Mizouchi in whom it is the process which places this card mold packing material on a plinth, and the heights of said PTP sheet were formed on the surface of the plinth, The card mold packing material on this plinth is pressed at a heater, and it has the process which encloses said PTP sheet between the front mold of this card mold packing material, and a flesh-side type, and is characterized by discharging the air between said front mold and a flesh-side type on the occasion of the process of this enclosure.

[0017] With a suitable operation gestalt, in case said card mold packing material is pressed at a heater, when a card mold packing material is missing from the other end from the end and is therefore gradually pressed by the heater, the air between said front mold and a flesh-side type is discharged outside from the edge of a card mold packing material. Said plinth is supported by the elastic means to the pedestal, and while said heater resists the reaction force of this elastic means, to the card mold package object on this plinth, a pressure welding is carried out gradually and it goes.

[0018] It replaces with this elastic means and you may make it supported to revolve by the medial axis in which said plinth carried out eccentricity to the pedestal.

[0019] Moreover, with other desirable operation gestalten, on said plinth front face, while the slot formed from the large path with allowances is formed and inserting these heights in this Mizouchi from the heights of said PTP sheet, said card mold packing material uses a retention implement, and is held at the plinth top. Furthermore, with other desirable operation gestalten, the card mold packing material may adsorb with the reduced pressure means on said plinth instead of this retention implement.

[0020]

[Embodiment of the Invention] Next, the gestalt of operation of this invention is explained with reference to an accompanying drawing. With this operation gestalt, in order for a clinical trial, i.e., the treatment results of drugs, to come to hand, in a medical institution, the card mold package object used for the clinical trial carried out and other therapy trials is explained.

[0021] The front view of this card mold package object is shown in drawing 1, that rear view is shown in drawing 2, that development view is shown in drawing 3, and that decomposition perspective view is shown in drawing 4.

[0022] This card mold package object consists of structure which closed the PTP sheet 14 of drugs between the card mold packing materials 12 which the whole becomes from rectangular pasteboard, as shown in drawing 4. As it is indicated in drawing 3 and drawing 4 as the flesh-side type 12B shown in front mold 12A of the card mold packing material shown in drawing 1, and drawing 2, the center line 16 is made into the symmetry, and it comes out, and it is inserted in so that it may face mutually, and the PTP sheet of drugs is pinched between the cover and the backing paper.

[0023] This PTP sheet is equipped with the structure where the circular heights 18 with the cross section circular as shown in drawing 4 and drawing 1 in which drugs are held were formed in 1 seriate, and one tablet 20 is held in each heights of those.

[0024] By having pasted up all over the plastics material (example: vinyl chloride resin) to which aluminum foil had heights in the opposite side with the heights of this PTP sheet, turning these heights to that opposite side, and pressing them, the tablet in heights tears aluminum foil (sign 22 of drawing 2), and is exposed out of a PTP sheet. The open end (it has opened wide at the rear face of plastics material.) of heights is covered by aluminum foil.

[0025] Two or more ellipse holes 24 which can insert each circular heights of a PTP sheet in the front mold of a card mold package object are formed in the shape of a single tier as shown in drawing 1, drawing 3, and drawing 4. And the circular hole 26 of a form almost equal to the diameter of these circular heights is similarly formed in the location which is equivalent to a flesh-side type at these circular heights in the shape of a single tier.

[0026] As shown in this front mold and a flesh-side type at drawing 1 and drawing 2, the consideration matter on the medication which is the need and which attains to a detail comparatively etc. is indicated in the clinical trial phase. The patient who receives this medication takes drugs with reference to this consideration matter comparatively over a detail. The tablet for 1 week is held in drawing 1 and the card mold package object of drawing 2.

[0027] When assembling this card mold package object (it manufactures), first, from the tooth back of a front mold, each heights 18 of a PTP sheet are made to insert in an ellipse hole, respectively, subsequently, a flesh-side type is inserted in towards a front mold along with a center line 16, and a PTP sheet is enclosed between a front mold and a flesh-side type as indicated by drawing 4. A front mold and the flesh-side type of each other are stuck by

predetermined adhesives and the binder. Preferably, it is stuck using a sensible-heat paste. In addition, about these processes, the back is explained in full detail.

[0028] Drawing 5 is the partial enlarged drawing showing the condition that the heights 18 of a PTP sheet are inserted in the ellipse hole 24 from the tooth back of a front mold. As shown in this drawing, this ellipse hole is equipped with minor-axis 24A formed in width of face almost equal to the diameter of circular heights, and major-axis 24B of larger width of face than the diameter of circular heights. This major axis has width of face the abbreviation [1.5 times] for the diameter of circular heights of this.

[0029] Since minor-axis 24A of an ellipse hole is a value almost equal to the path of circular heights, on the intersection of a minor axis and a circular heights periphery, the contacts 30A and 30B of the pair which an ellipse hole and circular heights touch exist in axial symmetry through major-axis 24B.

[0030] Next, the reason for having formed the hole of the card package object 10 in such a configuration is explained. First, profits in case the hole is formed from the circular hole of a diameter almost equal to the diameter of circular heights for the comparison, and disadvantageous profit are explained. In case the heights of a PTP sheet are held in the hole of a card mold packing material, in order to lose the migration and the gap of heights which are inserted in a hole in order to carry out location decision of the heights to a hole correctly generally, it is going to set the path of a circular hole as the almost same value as it of circular heights like previous statement (since these heights are held and fixed to a hole).

[0031] As shown in the sectional view of drawing 6, push the heights 18 of a PTP sheet on a tooth-back side, this is made to transform, and he tears the aluminum foil 22 exposed to the circular hole 26 of a backing paper, and was trying to take out a tablet 20 from side 12A of the cover of a card package object to the exterior of a card mold package object, in case the tablet in a PTP sheet is picked out from a card package object.

[0032] however, front mold 12A is circular in this method — since hole outer wall 13 is in contact with the PTP sheet heights 18 or this is approached extremely, there is a possibility of interfering in deformation of the heights which it is going to crush with stress. When it interferes in this deformation, extent by which heights are crushed will be controlled and heights will be prevented from it extruding [which were crushed] a tablet from that tooth back. It becomes impossible therefore, to take out a tablet from heights smoothly and easily. When this hindrance tends to be resisted and it is going to crush heights 18 further, the stress beyond the need must be applied to the card mold packing material of the circumference of vigor and heights, the deformation of a card mold package object becomes large, and there is a problem on which it is torn, without the aluminum foil on other tooth backs of heights other than the heights made into the purpose meaning, as a result a tablet jumps out of other heights.

[0033] So, with the operation gestalt of this invention, as shown in drawing 5, and as shown in drawing 7 (A-A sectional view of drawing 3) In the touching contacts 30A and 30B in which minor-axis 24A of an ellipse will carry out phase opposite with the circular heights 18 if this circular hole is used as an ellipse hole While the wall surface of front mold 12A of a card mold packing material supports heights 18, between major-axis partial 30B and the circular heights 18, the allowances (recess) 32 which can absorb the deformation by circular heights as stated above being crushed exist. Therefore, it becomes possible to take out a tablet from circular heights, without taking the force beyond the need to crush circular heights.

[0034] Such an ellipse hole is equipped with the contact which supports heights, and the allowances which can absorb the amount of the deformation (namely, deformation by the heights outer wall having projected from the original location in the direction of a path of heights) by heights being crushed. If it has these contact and allowances, puncturing formed in the card mold packing material will not be limited to an elliptical thing. For example, you may be the configuration of a ** type ((1) of drawing 8), a gourd mold (** (2)), and a tear drop mold (** (3)).

[0035] The contact (it is the same in other configurations) of an ellipse hole is formed in major-axis 24B at axial symmetry (refer to drawing 5). Therefore, the circular heights 18 are equally supported among these contacts 30A and 30B. Moreover, since it has allowances 32 in parts other than a contact, it is easy to insert heights 18 in this ellipse opening 24. In addition, in the case of a ** type configuration, more surely [said circular heights] it is supported by the ** type core by four contacts symmetrical with a point at ***** (refer to drawing 8 (1)).

[0036] As shown in drawing 3, two or more ellipse holes 24 for circular heights hold of said card mold package object are formed, respectively so that the major axis of the ellipse hole which adjoins the minor axis of an adjoining ellipse hole may intersect perpendicularly mutually. Therefore, even if the width of face of the longitudinal direction of a PTP sheet and the width of face of the longitudinal direction of a card mold packing material make opening the shape of an ellipse, they can be prevented from increasing beyond the need.

[0037] Various information, such as medication information which had the contents to desire and an amount in the front face and rear face of said card mold package object, a consideration matter, and notes, can be indicated, and this information can be told to a medical practitioner, a pharmacist, or a patient. Especially, various information prepares in advance the various card mold packing materials indicated beforehand, and should just carry out the seal of the PTP sheet using one predetermined packing material. This enables it to reply to the demand on various medication. Printing such information in advance on a PTP sheet is not that many time and effort is usually desired. Such a demand appears at the time of the clinical trial of drugs. That is, in the case of the clinical trial of drugs, it is necessary to tell a patient various notes and a consideration matter certainly. of course, the thing for which an operation gestalt like previous statement is adopted even if it is the drugs by which Kamiichi is carried out — each — concrete information can be certainly told to a user. a natural thing ***** — contents (packaging goods-ed), such as confectionery other than drugs, and food, — generally the invention in this application is applicable. At this time, it can replace with notes and a consideration matter and advertisement public notice information can also be

applied to a card mold packing material.

[0038] Next, the manufacture approach of the card mold package object concerning this operation gestalt is explained. Drawing 9 is a top view of a plinth where the package object with which the PTP sheet was pinched is installed between the front mold of a card mold packing material, and a flesh-side type. And drawing 10 is the B-B line sectional view of this plinth. In these drawings, 40 shows the field on which the card package object of 2 reams connected with the connection band is put, and 42 shows the holder for fixing the end face of this package object to a plinth.

[0039] As shown in drawing 10, a sign 40 is a crevice in which a package object as stated above is held. The wall 44 which carries out today's to the upper limit of a card mold package object is formed at the tip of this crevice. The sign 46 (drawing 9) of a holder is Toride for making it rotate so that a holder may separate from a plinth, in order for a worker to turn this holder to a plinth and to make it rotate.

[0040] The sign 48 of drawing 10 is center-of-rotation **** of the hinge for rotating this holder to a plinth. The circular hole 50 with which the crevice of a PTP sheet is inserted in this plinth is located in a line with the single tier.

[0041] The production process of the card mold package object using this plinth is as follows.

[0042] 1. Pinch a PTP sheet between front mold 12A of a packing material, and flesh-side type 1B so that the heights 18 of a PTP sheet may be inserted in the ellipse hole 24 of the cover of a card mold packing material. at least one tooth back of a front mold and a flesh-side type — the sensible-heat paste is mostly applied to the whole beforehand. A sensible-heat paste will be dissolved if a card mold package object is heated in the state of press beyond fixed temperature, and it sticks a front mold and a flesh-side type. That whose melting point is about 80 degrees C as a sensible-heat paste is used.

[0043] 2. Put this card mold package object on a plinth, and, subsequently hold the end face section of the card mold package object on a plinth with a holder.

[0044] 3. The pressure welding of the heater is carried out to the card mold package object on a plinth. The pressure at this time is realized by pushing against a plinth the heater connected to the cylinder. A pressure is usually 1t to the whole surface product of a card mold package object, and heating temperature is about 130 degrees C thru/or 200 degrees C. Heating time is 2 seconds thru/or several seconds.

[0045] Of course, this pressure, heating temperature, and heating time are suitably adjusted by the thickness of a card mold packing material, the quality of the material, and area. Since the heights of a PTP sheet are inserted in circular Mizouchi of a plinth, in case heights are pressurization, it is crushed, or it prevents this ** and heat attaining to the tablet in heights (it prevents heights becoming 50 degrees C or more), heat attains to a tablet, and he is trying for drugs not to deteriorate.

[0046] What is necessary is for a heater just to enable it to heat it to a pattern as the card mold package object on a plinth shown by the alternate long and short dash line or hatching of drawing 9 rather than to carry out the heating press of the card mold package object on a plinth by the whole surface. By doing in this way, it becomes possible to stick both on homogeneity as compared with the case where the whole surface of a card mold package object is stuck, without producing a wrinkling in a flesh-side type and a front mold.

[0047] 5. Take out a card mold package object from on a plinth after separating a holder from a card mold package object.

[0048] There are the following problems in the process of 4. It is making the 1st discharge appropriately the air between the front mold of a card mold package object, and a flesh-side type from between both first. If this is not performed appropriately, air will remain between a front mold and a flesh-side type, and both poor attachment will occur in it. This problem becomes large, so that a packing material becomes thick.

[0049] Then, as shown in drawing 11, the heat-resistant tape of a sign 60 etc. is stuck on the card package object hold crevice 40 on a plinth 61 according to the heating pattern shown by drawing 9, and few level differences are formed on a plinth. However, a break 62 is formed in a heat-resistant tape, and in case a front mold and the flesh-side type of each other are stuck by pressure from this break, he is trying for air to remove.

[0050] It is also effective to replace with this and to take the following gestalten on the other hand. Drawing 12 shows the plinth 61 concerning this gestalt from that side face. Although this plinth is supported by the pedestal 64, the elastic means 66 is formed in the tip approach of a plinth between the plinth and the pedestal. As an elastic means, they are coiled spring and flat spring.

[0051] If the heater 70 fixed to the cylinder 68 is pressed to this plinth 61 as shown in drawing 12, a plinth will be rotated as gradually shown in **** 74 towards a pedestal 64 centering on the hinge of the end face 72 of a plinth, while this press receives the reaction force (elastic force) from an elastic means.

[0052] In this process, as shown in **** 76 which is an one-point broken line, the pressure welding of the heater is gradually carried out to the card mold package object on a plinth towards a tip from the end face of a package object. That is, from end face 10A of the card mold package object on a plinth, the front mold and the flesh-side type are stuck one by one toward tip 10B, and it goes. The broken line in drawing shows the condition of having rotated until the plinth became almost parallel to a pedestal. Since the tip of a card mold package object has accomplished opening with which the cover and the backing paper are not connected, as shown in spiral **** 78, it can discharge the air between a cover and a backing paper from this opening.

[0053] It may replace with the gestalt which adopted this elastic means (means from a cartridge), and the plinth 61 rocked to a pedestal 64 as shown in drawing 13 may be adopted. That is, both the edges of a pedestal and a plinth are made to penetrate the support shaft 77, and a plinth is supported to revolve free [rocking] to a pedestal. If

eccentricity of this support shaft is carried out to tip approach and it is established from the core of a plinth, support in which this rocking is free will be realized. the condition that the heater is not in contact with a plinth — the end face approach of a plinth — the self-weight — under, from a tip — **** — the gestalt which is is taken ((1) of drawing 13). If a heater contacts a plinth from this gestalt, the end face of a plinth will be raised, and that tip is lowered, and it is made parallel as a pedestal and a plinth finally show (2) of drawing 13 . As the process in which it results in this (2) shows to **** 76 of drawing 12 , it applies at a tip from the end face of a card mold package object, and thermocompression bonding of a front mold and the flesh-side type is carried out gradually.

[0054] Un-arranging when putting a card mold package object on a plinth exists in the 2nd. To stop enough said heights 18 which project from a card mold package object in the circular crevice 50 of a plinth is desired. if it meets and there is nothing — a card mold package object — a pressure — adding — the time — heights 18 — a crevice 50 — separating . Then, although it is possible to make the path of a circular crevice into slightly larger extent than the path of circular heights, now, circular heights deform or there are problems, like a blemish is attached to circular heights. Then, the path of a circular crevice is made into a big value with allowances from the path of circular heights, the retention implement 42 as stated above is used, and the end face section of a card mold package object is held and fixed to a plinth (retention).

[0055] On the other hand, it does not depend on such a retention implement, but as shown in drawing 14 , the opening 80 connected with reduced pressure means, such as a vacuum pump, on the surface of a plinth is formed, and it may be made to carry out reduced pressure adsorption of the card mold package object on a plinth to a plinth.

[0056] Drawing 15 is the front view in which the card mold package object as stated above showed the connected continuum. This continuum is equipped with the structure where two or more card mold package objects 10 of each other were connected, through the connection section 82. The connection section 82 is formed in for example, a front mold or a flesh-side type, and one. By *****, a used card mold package object can be separated from a continuum in this connection section, and a perforation can be passed to a medical practitioner etc. at it.

[0057] As for this continuum, the package object with which the drugs for 1 week were held is connected in the four-piece die-length direction. Therefore, as the whole, the drugs of the number of recipes of a moon unit are held in this connection object. Of course, one package object is the unit of a day, and if these seven package objects are connected, the continuum used for recipe of a week unit as a whole will be offered.

[0058] In this continuum, with the adjoining sheet mold package object, the train 90 in which the circular heights of a PTP sheet were prepared shifts, and is formed. When the front molds of a sheet mold package object are made to counter and it inserts in through the connection section 82 by carrying out like this, he is trying for the heights of the PTP sheet which projects from the hole 24 of a front mold not to touch mutually.

[0059] In addition, although the front mold and flesh-side type of a card mold packing material were made to stick by pressure with a sensible-heat paste with said operation gestalt, it may replace with this and you may be a double-sided tape.

[0060]

[Effect of the Invention] As explained above, according to this invention, information cannot be directly printed on a PTP sheet, but packing of the PTP sheet can be carried out in the card mold packing material information was indicated to be, and the card mold package object which can transmit certainly various information, such as a memorandum of various cautions of operation, medication hysteresis, and a symptom, to a patient, a medical practitioner, a pharmacist, other consumers, etc. can be offered.

[0061] Furthermore, according to this invention, the card mold package object which can pick out easily and certainly hold objects, such as each drugs held in the PTP sheet, from this card mold package object can be offered.

[0062] Furthermore, according to this invention, the poor package of this card mold package object cannot be caused, and the manufacture approach of a card mold package object that this card mold package object can be manufactured can be offered.

[0063] Furthermore, according to this invention, the continuum of the card mold package object which gave facilities to recipe of a patient and a consumer can be offered again by the continuum which this card mold package object was made to follow per recipe of the recipe unit of a week, or the moon.

[Translation done.]

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TECHNICAL FIELD

[The field of the invention to which invention belongs] This invention relates to a card mold package object. Especially this invention relates to the card mold package object which holds the PTP sheet of drugs. This invention relates also to the continuum and its manufacture approach (or the assembly approach) of this card mold package object further.

[Translation done.]

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PRIOR ART

[Description of the Prior Art] From the former, the PTP (Press Through Package) package is known as one of the package techniques of drugs. In order to give required information, such as a class of drugs, and cautions on recipe, to those by whom this PTP sheet was medicated with drugs, it is devised so that information, such as an alphabetic character, can be indicated. for example, the PTP sheet which equipped JP,61-113259,U with the coloring section which can fill in an alphabetic character etc. — an indication — now, it is.

[0003] moreover, in order to double the number of the drugs held in the PTP sheet itself with the number to take, seven of a longitudinal direction are recipe time sequence-of-numbers **** of a day crosswise — the drugs package technique which is equipped with the drugs hold space section of the number, and constitutes one unit is indicated (publication of unexamined utility model application Heisei 2-17137). The day of the week is further printed by this PTP sheet.

[0004] Moreover, the drugs package technique in which the drugs taken are arranged in order by JP,2-129074,U for every day of the week, and the day of the week was indicated by the package sheet is indicated.

[0005] Moreover, the tablet of a band-like PTP sheet can be sent out in a fixed unit, and the hard case of the PTP sheet which the day moreover taken and the count of recipe understood exists (JP,6-25171,U). Furthermore, the same hard case which held the PTP sheet of a publication in JP,2-17137,U exists (JP,6-42749,U, JP,6-42750,U).

[0006]

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EFFECT OF THE INVENTION

[Effect of the Invention] As explained above, according to this invention, information cannot be directly printed on a PTP sheet, but packing of the PTP sheet can be carried out in the card mold packing material information was indicated to be, and the card mold package object which can transmit certainly various information, such as a memorandum of various cautions of operation, medication hysteresis, and a symptom, to a patient, a medical practitioner, a pharmacist, other consumers, etc. can be offered.

[0061] Furthermore, according to this invention, the card mold package object which can pick out easily and certainly hold objects, such as each drugs held in the PTP sheet, from this card mold package object can be offered.

[0062] Furthermore, according to this invention, the poor package of this card mold package object cannot be caused, and the manufacture approach of a card mold package object that this card mold package object can be manufactured can be offered.

[0063] Furthermore, according to this invention, the continuum of the card mold package object which gave facilities to recipe of a patient and a consumer can be offered again by the continuum which this card mold package object was made to follow per recipe of the recipe unit of a week, or the moon.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] In the conventional example as stated above, information, such as a direct alphabetic character, is all indicated by the PTP sheet. In the phase of the medication to a known case, since the gestalt which takes drugs was decided to some extent, even if it is such direct printing, there is no especially un-arranging. However, since the gestalt of medication is not decided, and since it is necessary to tell a patient various notes with the drugs of a clinical trial phase for example, direct printing like previous statement is not appropriate.

[0007] Then, this invention carries out packing of the PTP sheet in the card mold packing material information was indicated to be rather than prints information directly on a PTP sheet, and aims at offering the card mold package object which can transmit certainly various information, such as a memorandum of various cautions of operation, medication hysteresis, and a symptom, to a patient, a medical practitioner, a pharmacist, other consumers, etc.

[0008] Furthermore, this invention aims at offering the card mold package object which can pick out easily and certainly hold objects, such as each drugs held in the PTP sheet, from this card mold package object.

[0009] Furthermore, this invention aims at not causing the poor package of this card mold package object, and offering the manufacture approach of a card mold package object that this card mold package object can be manufactured.

[0010] Furthermore, this invention aims at offering the continuum of the card mold package object which gave facilities to recipe of a patient and a consumer by the continuum which this card mold package object was made to follow per recipe of the recipe unit of a week, or the moon again.

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MEANS

[Means for Solving the Problem] In order to attain said purpose, the card mold package object concerning this invention is characterized by what is done for the closure of the PTP sheet with which contents, such as drugs, were held by the card mold packing material which indicated the consideration matter on recipe. Therefore, since the closure of the PTP sheet is carried out with the card which can indicate the consideration matter on recipe each time, various information, such as a memorandum of various cautions of operation, medication hysteresis, and a symptom, can be certainly transmitted to a patient, a medical practitioner, a pharmacist, other consumers, etc.

[0012] With the desirable gestalt of implementation of invention, said PTP sheet has two or more heights which hold two or more drugs, said card mold packing material has two or more holes with which this height is inserted, and since it is desorbed from said drugs etc., when this height is made to deform from this height, said hole is formed in the gestalt which can be desorbed from these drugs etc. with stress usual from this height.

[0013] For this reason, this hole is equipped with width of face almost equal to said height, and larger width of face than this height, and said hole is preferably formed in the gestalt which constitutes said height and the contact of the pair mutually located in the symmetry. This hole may be formed in either of the shape of the shape of the shape of an ellipse which has a contact with said height, and a ** type, tear-drop, and a gourd.

[0014] Suitably, said card mold packing material was constituted by the pasteboard of a pair, and is equipped with the structure which closed said PTP sheet between the pasteboard of this pair. Said height is formed for example, in the cross-section round shape, and holds a tablet in the interior.

[0015] The continuum of the card mold package object concerning this invention is equipped with the structure where the plurality of a card mold package object as stated above was connected per a week unit or moon through the connection section.

[0016] Furthermore, the manufacture approach of the card mold package object concerning this invention Making the heights of a PTP sheet insert in the hole prepared in the card mold packing material The process which pinches this PTP sheet between the front mold of this card mold packing material, and a flesh-side type, The process held in Mizouchi in whom it is the process which places this card mold packing material on a plinth, and the heights of said PTP sheet were formed on the surface of the plinth, The card mold packing material on this plinth is pressed at a heater, and it has the process which encloses said PTP sheet between the front mold of this card mold packing material, and a flesh-side type, and is characterized by discharging the air between said front mold and a flesh-side type on the occasion of the process of this enclosure.

[0017] With a suitable operation gestalt, in case said card mold packing material is pressed at a heater, when a card mold packing material is missing from the other end from the end and is therefore gradually pressed by the heater, the air between said front mold and a flesh-side type is discharged outside from the edge of a card mold packing material. Said plinth is supported by the elastic means to the pedestal, and while said heater resists the reaction force of this elastic means, to the card mold package object on this plinth, a pressure welding is carried out gradually and it goes.

[0018] It replaces with this elastic means and you may make it supported to revolve by the medial axis in which said plinth carried out eccentricity to the pedestal.

[0019] Moreover, with other desirable operation gestalten, on said plinth front face, while the slot formed from the large path with allowances is formed and inserting these heights in this Mizouchi from the heights of said PTP sheet, said card mold packing material uses a retention implement, and is held at the plinth top. Furthermore, with other desirable operation gestalten, the card mold packing material may adsorb with the reduced pressure means on said plinth instead of this retention implement.

[0020]

[Embodiment of the Invention] Next, the gestalt of operation of this invention is explained with reference to an accompanying drawing. With this operation gestalt, in order for a clinical trial, i.e., the treatment results of drugs, to come to hand, in a medical institution, the card mold package object used for the clinical trial carried out and other therapy trials is explained.

[0021] The front view of this card mold package object is shown in drawing 1 , that rear view is shown in drawing 2 , that development view is shown in drawing 3 , and that decomposition perspective view is shown in drawing 4 .

[0022] This card mold package object consists of structure which closed the PTP sheet 14 of drugs between the card mold packing materials 12 which the whole becomes from rectangular pasteboard, as shown in drawing 4 . As it is indicated in drawing 3 and drawing 4 as the flesh-side type 12B shown in front mold 12A of the card mold packing material shown in drawing 1 , and drawing 2 , the center line 16 is made into the symmetry, and it comes out, and it

is inserted in so that it may face mutually, and the PTP sheet of drugs is pinched between the cover and the backing paper.

[0023] This PTP sheet is equipped with the structure where the circular heights 18 with the cross section circular as shown in drawing 4 and drawing 1 in which drugs are held were formed in 1 seriate, and one tablet 20 is held in each heights of those.

[0024] By having pasted up all over the plastics material (example: vinyl chloride resin) to which aluminum foil had heights in the opposite side with the heights of this PTP sheet, turning these heights to that opposite side, and pressing them, the tablet in heights tears aluminum foil (sign 22 of drawing 2), and is exposed out of a PTP sheet. The open end (it has opened wide at the rear face of plastics material.) of heights is covered by aluminum foil.

[0025] Two or more ellipse holes 24 which can insert each circular heights of a PTP sheet in the front mold of a card mold package object are formed in the shape of a single tier as shown in drawing 1, drawing 3, and drawing 4. And the circular hole 26 of a form almost equal to the diameter of these circular heights is similarly formed in the location which is equivalent to a flesh-side type at these circular heights in the shape of a single tier.

[0026] As shown in this front mold and a flesh-side type at drawing 1 and drawing 2, the consideration matter on the medication which is the need and which attains to a detail comparatively etc. is indicated in the clinical trial phase. The patient who receives this medication takes drugs with reference to this consideration matter comparatively over a detail. The tablet for 1 week is held in drawing 1 and the card mold package object of drawing 2.

[0027] When assembling this card mold package object (it manufactures), first, from the tooth back of a front mold, each heights 18 of a PTP sheet are made to insert in an ellipse hole, respectively, subsequently, a flesh-side type is inserted in towards a front mold along with a center line 16, and a PTP sheet is enclosed between a front mold and a flesh-side type as indicated by drawing 4. A front mold and the flesh-side type of each other are stuck by predetermined adhesives and the binder. Preferably, it is stuck using a sensible-heat paste. In addition, about these processes, the back is explained in full detail.

[0028] Drawing 5 is the partial enlarged drawing showing the condition that the heights 18 of a PTP sheet are inserted in the ellipse hole 24 from the tooth back of a front mold. As shown in this drawing, this ellipse hole is equipped with minor-axis 24A formed in width of face almost equal to the diameter of circular heights, and major-axis 24B of larger width of face than the diameter of circular heights. This major axis has width of face the abbreviation [1.5 times] for the diameter of circular heights of this.

[0029] Since minor-axis 24A of an ellipse hole is a value almost equal to the path of circular heights, on the intersection of a minor axis and a circular heights periphery, the contacts 30A and 30B of the pair which an ellipse hole and circular heights touch exist in axial symmetry through major-axis 24B.

[0030] Next, the reason for having formed the hole of the card package object 10 in such a configuration is explained. First, profits in case the hole is formed from the circular hole of a diameter almost equal to the diameter of circular heights for the comparison, and disadvantageous profit are explained. In case the heights of a PTP sheet are held in the hole of a card mold packing material, in order to lose the migration and the gap of heights which are inserted in a hole in order to carry out location decision of the heights to a hole correctly generally, it is going to set the path of a circular hole as the almost same value as it of circular heights like previous statement (since these heights are held and fixed to a hole).

[0031] As shown in the sectional view of drawing 6, push the heights 18 of a PTP sheet on a tooth-back side, this is made to transform, and he tears the aluminum foil 22 exposed to the circular hole 26 of a backing paper, and was trying to take out a tablet 20 from side 12A of the cover of a card package object to the exterior of a card mold package object, in case the tablet in a PTP sheet is picked out from a card package object.

[0032] however, front mold 12A is circular in this method — since hole outer wall 13 is in contact with the PTP sheet heights 18 or this is approached extremely, there is a possibility of interfering in deformation of the heights which it is going to crush with stress. When it interferes in this deformation, extent by which heights are crushed will be controlled and heights will be prevented from it extruding [which were crushed] a tablet from that tooth back. It becomes impossible therefore, to take out a tablet from heights smoothly and easily. When this hindrance tends to be resisted and it is going to crush heights 18 further, the stress beyond the need must be applied to the card mold packing material of the circumference of vigor and heights, the deformation of a card mold package object becomes large, and there is a problem on which it is torn, without the aluminum foil on other tooth backs of heights other than the heights made into the purpose meaning, as a result a tablet jumps out of other heights.

[0033] So, with the operation gestalt of this invention, as shown in drawing 5, and as shown in drawing 7 (A-A sectional view of drawing 3) In the touching contacts 30A and 30B in which minor-axis 24A of an ellipse will carry out phase opposite with the circular heights 18 if this circular hole is used as an ellipse hole While the wall surface of front mold 12A of a card mold packing material supports heights 18, between major-axis partial 30B and the circular heights 18, the allowances (recess) 32 which can absorb the deformation by circular heights as stated above being crushed exist. Therefore, it becomes possible to take out a tablet from circular heights, without taking the force beyond the need to crush circular heights.

[0034] Such an ellipse hole is equipped with the contact which supports heights, and the allowances which can absorb the amount of the deformation (namely, deformation by the heights outer wall having projected from the original location in the direction of a path of heights) by heights being crushed. If it has these contact and allowances, puncturing formed in the card mold packing material will not be limited to an elliptical thing. For example, you may be the configuration of a ** type ((1) of drawing 8), a gourd mold (** (2)), and a tear drop mold (** (3)).

[0035] The contact (it is the same in other configurations) of an ellipse hole is formed in major-axis 24B at axial symmetry (refer to drawing 5). Therefore, the circular heights 18 are equally supported among these contacts 30A and 30B. Moreover, since it has allowances 32 in parts other than a contact, it is easy to insert heights 18 in this ellipse opening 24. In addition, in the case of a ** type configuration, more surely [said circular heights] it is supported by the ** type core by four contacts symmetrical with a point at ***** (refer to drawing 8 (1)).

[0036] As shown in drawing 3 , two or more ellipse holes 24 for circular heights hold of said card mold package object are formed, respectively so that the major axis of the ellipse hole which adjoins the minor axis of an adjoining ellipse hole may intersect perpendicularly mutually. Therefore, even if the width of face of the longitudinal direction of a PTP sheet and the width of face of the longitudinal direction of a card mold packing material make opening the shape of an ellipse, they can be prevented from increasing beyond the need.

[0037] Various information, such as medication information which had the contents to desire and an amount in the front face and rear face of said card mold package object, a consideration matter, and notes, can be indicated, and this information can be told to a medical practitioner, a pharmacist, or a patient. Especially, various information prepares in advance the various card mold packing materials indicated beforehand, and should just carry out the seal of the PTP sheet using one predetermined packing material. This enables it to reply to the demand on various medication. Printing such information in advance on a PTP sheet is not that many time and effort is usually desired. Such a demand appears at the time of the clinical trial of drugs. That is, in the case of the clinical trial of drugs, it is necessary to tell a patient various notes and a consideration matter certainly. of course, the thing for which an operation gestalt like previous statement is adopted even if it is the drugs by which Kamiichi is carried out — each — concrete information can be certainly told to a user. a natural thing ***** — contents (packaging goods-ed), such as confectionery other than drugs, and food, — generally the invention in this application is applicable. At this time, it can replace with notes and a consideration matter and advertisement public notice information can also be applied to a card mold packing material.

[0038] Next, the manufacture approach of the card mold package object concerning this operation gestalt is explained. Drawing 9 is a top view of a plinth where the package object with which the PTP sheet was pinched is installed between the front mold of a card mold packing material, and a flesh-side type. And drawing 10 is the B-B line sectional view of this plinth. In these drawings, 40 shows the field on which the card package object of 2 reams connected with the connection band is put, and 42 shows the holder for fixing the end face of this package object to a plinth.

[0039] As shown in drawing 10 , a sign 40 is a crevice in which a package object as stated above is held. The wall 44 which carries out today's to the upper limit of a card mold package object is formed at the tip of this crevice. The sign 46 (drawing 9) of a holder is Toride for making it rotate so that a holder may separate from a plinth, in order for a worker to turn this holder to a plinth and to make it rotate.

[0040] The sign 48 of drawing 10 is center-of-rotation **** of the hinge for rotating this holder to a plinth. The circular hole 50 with which the crevice of a PTP sheet is inserted in this plinth is located in a line with the single tier.

[0041] The production process of the card mold package object using this plinth is as follows.

[0042] 1. Pinch a PTP sheet between front mold 12A of a packing material, and flesh-side type 1B so that the heights 18 of a PTP sheet may be inserted in the ellipse hole 24 of the cover of a card mold packing material. at least one tooth back of a front mold and a flesh-side type — the sensible-heat paste is mostly applied to the whole beforehand. A sensible-heat paste will be dissolved if a card mold package object is heated in the state of press beyond fixed temperature, and it sticks a front mold and a flesh-side type. That whose melting point is about 80 degrees C as a sensible-heat paste is used.

[0043] 2. Put this card mold package object on a plinth, and, subsequently hold the end face section of the card mold package object on a plinth with a holder.

[0044] 3. The pressure welding of the heater is carried out to the card mold package object on a plinth. The pressure at this time is realized by pushing against a plinth the heater connected to the cylinder. A pressure is usually 1t to the whole surface product of a card mold package object, and heating temperature is about 130 degrees C thru/or 200 degrees C. Heating time is 2 seconds thru/or several seconds.

[0045] Of course, this pressure, heating temperature, and heating time are suitably adjusted by the thickness of a card mold packing material, the quality of the material, and area. Since the heights of a PTP sheet are inserted in circular Mizouchi of a plinth, in case heights are pressurization, it is crushed, or it prevents this ** and heat attaining to the tablet in heights (it prevents heights becoming 50 degrees C or more), heat attains to a tablet, and he is trying for drugs not to deteriorate.

[0046] What is necessary is for a heater just to enable it to heat it to a pattern as the card mold package object on a plinth shown by the alternate long and short dash line or hatching of drawing 9 rather than to carry out the heating press of the card mold package object on a plinth by the whole surface. By doing in this way, it becomes possible to stick both on homogeneity as compared with the case where the whole surface of a card mold package object is stuck, without producing a wrinkling in a flesh-side type and a front mold.

[0047] 5. Take out a card mold package object from on a plinth after separating a holder from a card mold package object.

[0048] There are the following problems in the process of 4. It is making the 1st discharge appropriately the air between the front mold of a card mold package object, and a flesh-side type from between both first. If this is not performed appropriately, air will remain between a front mold and a flesh-side type, and both poor attachment will

occur in it. This problem becomes large, so that a packing material becomes thick.

[0049] Then, as shown in drawing 11 , the heat-resistant tape of a sign 60 etc. is stuck on the card package object hold crevice 40 on a plinth 61 according to the heating pattern shown by drawing 9 , and few level differences are formed on a plinth. However, a break 62 is formed in a heat-resistant tape, and in case a front mold and the flesh-side type of each other are stuck by pressure from this break, he is trying for air to remove.

[0050] It is also effective to replace with this and to take the following gestalten on the other hand. Drawing 12 shows the plinth 61 concerning this gestalt from that side face. Although this plinth is supported by the pedestal 64, the elastic means 66 is formed in the tip approach of a plinth between the plinth and the pedestal. As an elastic means, they are coiled spring and flat spring.

[0051] If the heater 70 fixed to the cylinder 68 is pressed to this plinth 61 as shown in drawing 12 , a plinth will be rotated as gradually shown in **** 74 towards a pedestal 64 centering on the hinge of the end face 72 of a plinth, while this press receives the reaction force (elastic force) from an elastic means.

[0052] In this process, as shown in **** 76 which is an one-point broken line, the pressure welding of the heater is gradually carried out to the card mold package object on a plinth towards a tip from the end face of a package object. That is, from end face 10A of the card mold package object on a plinth, the front mold and the flesh-side type are stuck one by one toward tip 10B, and it goes. The broken line in drawing shows the condition of having rotated until the plinth became almost parallel to a pedestal. Since the tip of a card mold package object has accomplished opening with which the cover and the backing paper are not connected, as shown in spiral **** 78, it can discharge the air between a cover and a backing paper from this opening.

[0053] This elastic means

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the front view of a card mold package object.

[Drawing 2] It is the rear view.

[Drawing 3] It is the development view.

[Drawing 4] It is the decomposition perspective view.

[Drawing 5] It is the mimetic diagram showing the condition that the heights of a PTP sheet are inserted in the ellipse hole from the tooth back of the front mold of a card mold packing material.

[Drawing 6] It is the sectional view of the neighborhood where the heights of the PTP sheet of a card mold package object are inserted.

[Drawing 7] It is the A-A sectional view of drawing 3 .

[Drawing 8] It is the mimetic diagram showing the gestalt of other holes replaced with the ellipse hole of a card mold package object.

[Drawing 9] It is the top view of a plinth where the package object with which the PTP sheet was pinched is installed between the front mold of a card mold packing material, and a flesh-side type.

[Drawing 10] It is the B-B line sectional view of this plinth.

[Drawing 11] It is the perspective view showing the condition of having stuck the heat-resistant tape on the surface part of this plinth.

[Drawing 12] It is the mimetic diagram showing an example of the support gestalt of a plinth to a pedestal.

[Drawing 13] It is the mimetic diagram showing other examples.

[Drawing 14] It is the perspective view of the plinth to show the condition that opening connected with a reduced pressure means is formed on the surface of the plinth.

[Drawing 15] A card mold package object is the front view having shown the connected continuum.

[Description of Notations]

10 Card Mold Package Object

12 Card Mold Packing Material

12A The front mold of a card mold packing material

12B The flesh-side type of a card mold packing material

14 PTP Sheet

18 Circular Heights

[Translation done.]

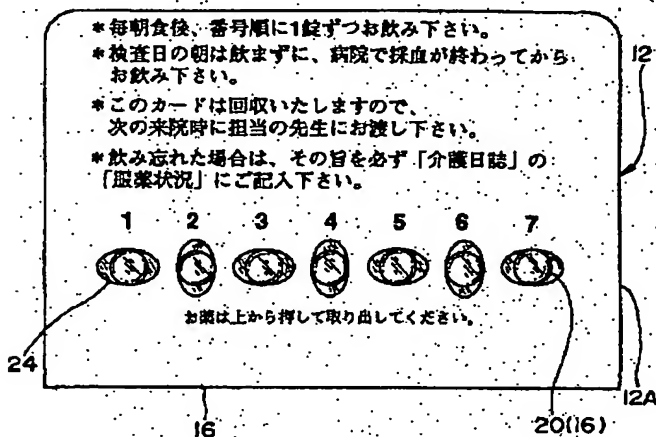
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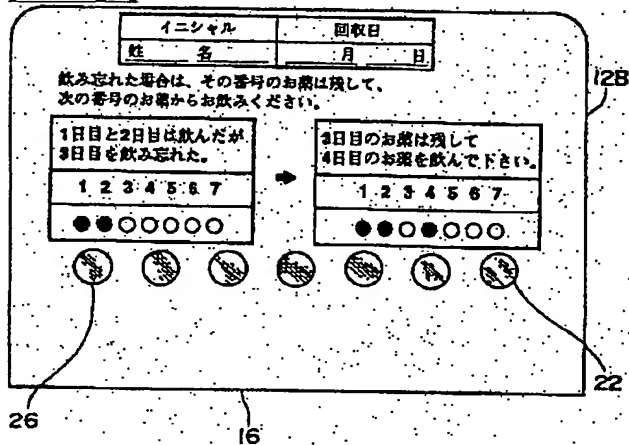
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DRAWINGS

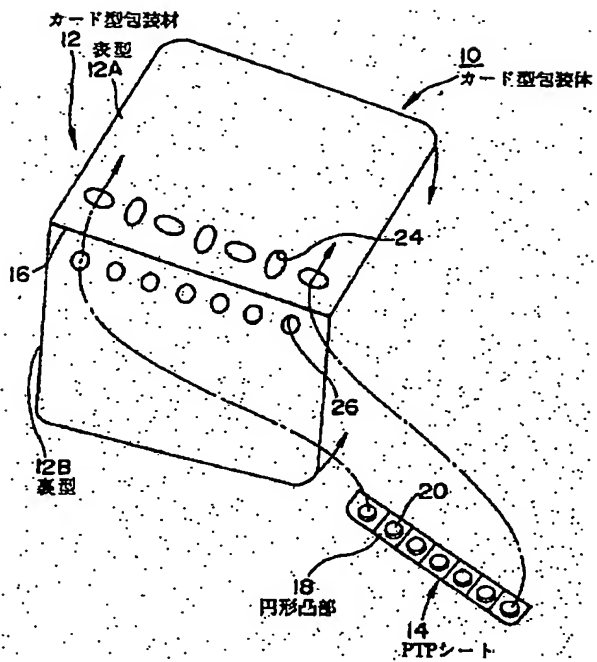
[Drawing 1]



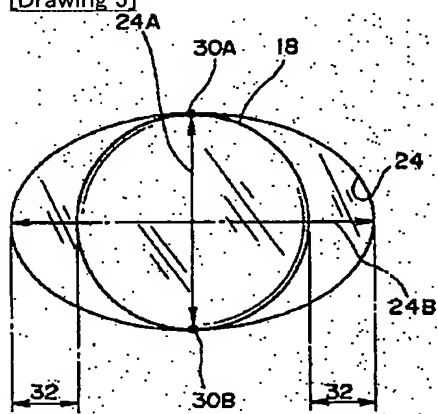
[Drawing 2]



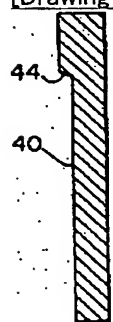
[Drawing 4]



[Drawing 5]



[Drawing 10]

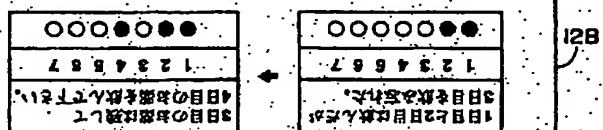
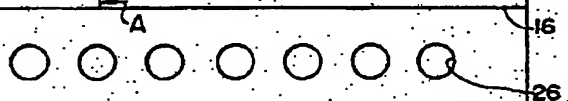
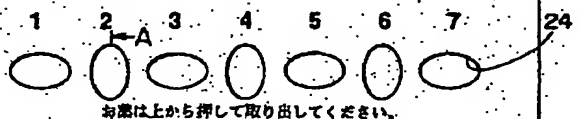


[Drawing 3]

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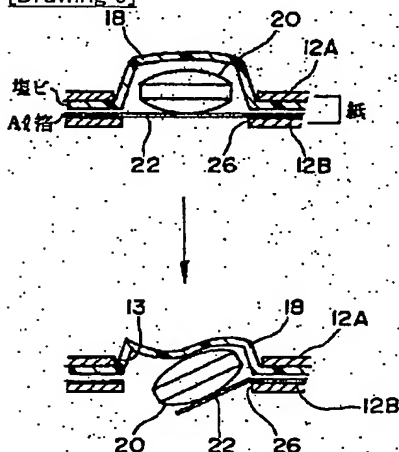
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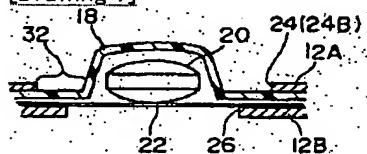


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[Drawing 6]

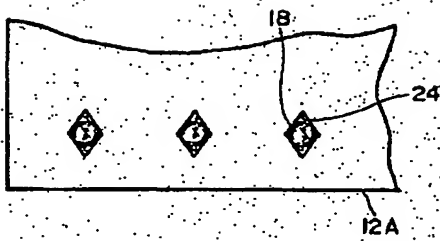


[Drawing 7]

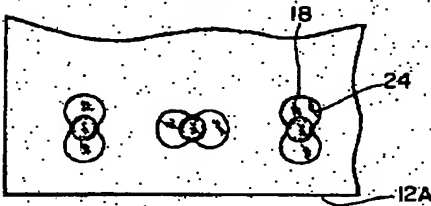


[Drawing 8]

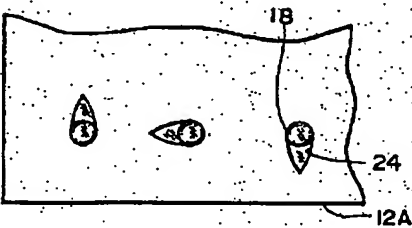
(1)



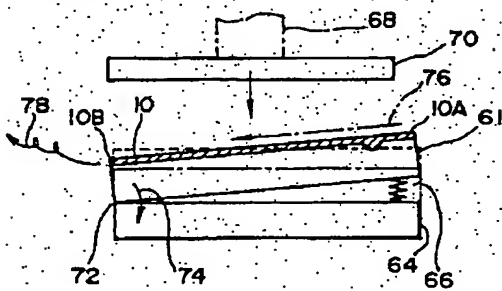
(2)



(3)

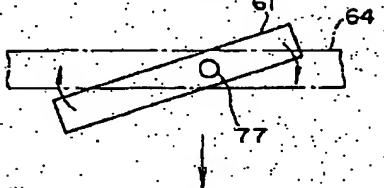


[Drawing 12]

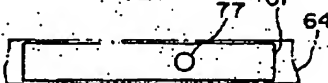


[Drawing 13]

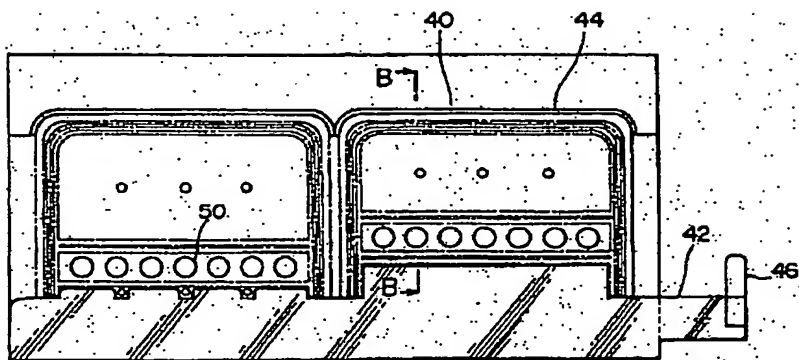
(1)



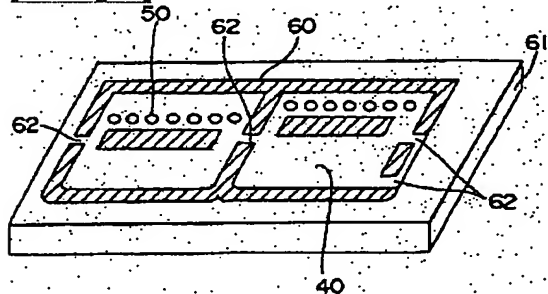
(2)



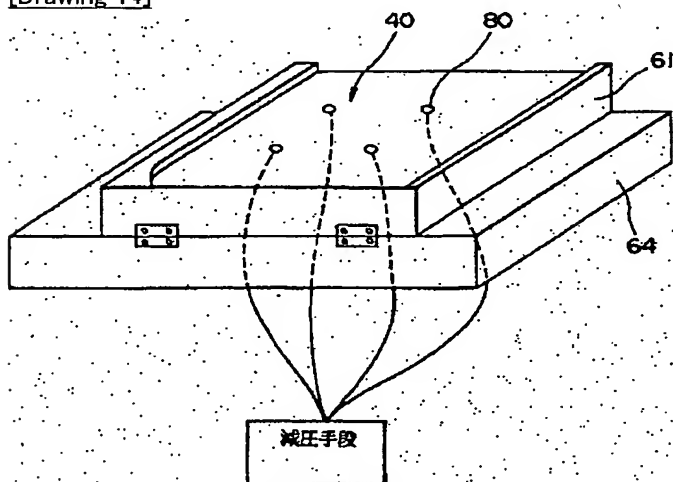
[Drawing 9]



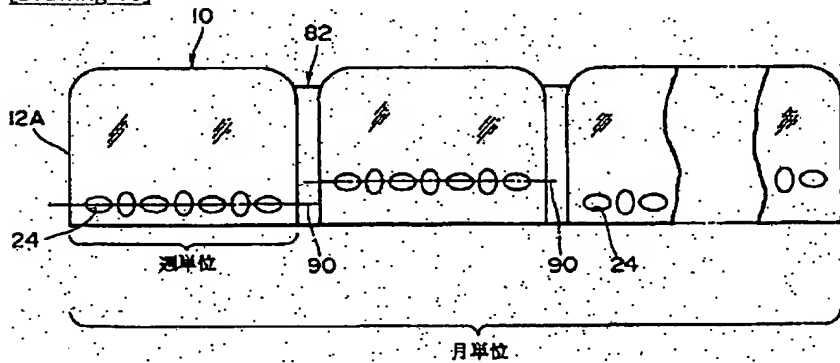
[Drawing 11]



[Drawing 14]



[Drawing 15]



[Translation done.]

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